

ATTACHMENT A
REMARKS

Claims 1, 3, 5, 6, 34, 36, 44-46 and 48-51 have been rejected under 35 USC 102(e) as being "anticipated by" the Papa et al ("Papa") reference, while claims 4, 32, 33, 37 and 40-43 have been rejected under 35 USC 103(a) as being unpatentable over Papa "in view of Behl." These rejections are respectfully traversed although independent claims 1 and 34 have been amended to include the subject matter of several of the dependent claims and these claims have been canceled. In particular, claims 1 and 34 have been amended to recite that the first component comprises a processor having a passive heat sink operably coupled thereto, and thus include the subject matter of, in the case of claim 1, dependent claims 4, 32 and 42.

The Papa reference relates to a computer system wherein a network server includes removable network interface modules mounted on a chassis. The network interface modules, which are indicated at 104 in Figure 4 (to which the Examiner has referred), connect to a CPU module, denoted 103, through an interconnection assembly module. The system includes a backplane board 184 which is used for connecting the various chassis modules when the chassis modules are removably mounted on the chassis 170.

As shown in Figure 6 (to which the Examiner has also referred), the interface modules 104 may comprise a canister which includes a plurality of interface cards 562, a printed circuit board 561, and a plurality of separately removable fans 566A and 566B.

In view of the amendments that have been made to claims 1 and 34, the relevant rejection here is that based on a combination of the Papa and Behl references. Although the Behl reference has been discussed in some detail in previous responses, it is believed that the relevant teachings thereof with respect to the claims now presented is that identified by the Examiner in the paragraph bridging pages 3 and 4 of the Office Action. Specifically, as stated in this paragraph, the Examiner has contended that "Behl teaches a passive heat sink (20) coupled to a component (150) for optimizing convective cooling." The Examiner concludes that it "would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the conduit of Papa with the heat sink taught by Behl for optimizing convective cooling."

As indicated above, the subject matter of claims 42 and 43 has been incorporated into claims 1 and 34, respectively, and in relation to claims 42 and 43, the Examiner has contended that "Papa further teaches an isolation assembly 103 comprising a processor, however, Papa fails to teach the isolation assembly 103 including a fan for cooling." The Examiner then contends that "[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the isolation assembly 103 with a fan for better cooling purposes, since most processors in a computer system need cooling."

It is respectfully submitted that claims 1 and 34 as amended patentably define over any fair combination of the Papa and Behl patents. First, item 103 of Papa is simply a CPU module and not "an isolation assembly" as claimed. In this regard, there is no disclosure in Papa of providing cooling of CPU module 103, and this is significant given that Papa specifically provides for cooling of the network interface modules 104. In other words, if it were contemplated in Papa that the CPU module 103 was to be cooled using one or more cooling fans or otherwise, this certainly would have been disclosed in Papa given that the multiple fan cooling system for modules 104 is fully described. Further, there is no disclosure in Papa that the processor of the CPU module includes a heat sink much less a passive heat sink. As discussed in the instant application at lines 21-24 of page 2, the present invention obviates the need for an active heat sink and, "with the present invention, the same cooling or better results can be achieved with the use of passive heat sinks." As is also stated in this passage, "because passive sinks are less expensive than active heat sinks, lower costs can be achieved with the present invention."

Regarding the Behl patent, while it is agreed that Behl discloses a heat sink "coupled to a component (150)" it is noted that component 150 is a memory storage device and not a processor. Moreover, the Behl patent is specifically concerned with a convectively cooled memory storage device housing, and it is respectfully submitted that nothing taught in Behl would lead to combining the teachings thereof with respect to "component 150" (a memory storage device) with the teachings of Papa in such a way as to arrive at the present invention as claimed in claims 1 and 34 as amended. Accordingly, it is respectfully submitted that the present invention as claimed, including

the first and second passages, the isolation assembly, and the first and second fans, all as set forth in claims 1 and 34, in combination with a first component in the form of a processor having a passive heat sink operably coupled thereto, is simply not obvious from the teachings of the Behl and Papa patents. Accordingly, allowance of claims 1 and 34 and the claims dependent thereon is respectfully solicited.

Regarding the dependent claims, these claims are patentable for at least the reasons set forth above in support of the patentability of claims 1 and 34. In addition, it is not seen that the references disclose a conduit, separate from the first and second fans, in communication with the "isolation assembly," as claimed in claim 3, or disclose a conduit in communication with the "isolation assembly" as claimed in claim 36.

Allowance of the application in its present form is respectfully solicited.

END REMARKS